

WHAT IS CLAIMED IS:

1. A location information recognition apparatus
for recognizing location information written on a
letter and constituted by categories which form a
5 hierarchical structure with a plurality of stages
changing in units of various countries, comprising:

means for selecting a dictionary and a procedure
from a plurality of dictionaries corresponding to the
various countries, respectively, and used to recognize
10 the location information, and various recognition
procedures which vary with the country and each of
which corresponds to each category of the hierarchical
structure with the plurality of stages of the location
information;

15 means for reading the location information written
on the letter; and

means for recognizing the read location
information using the selected dictionary in accordance
with the recognition procedure selected by said
20 selection means.

2. A location information recognition method of
recognizing location information constituted by
categories which form a hierarchical structure with a
plurality of stages varying with the country,
25 comprising the steps of:

having a plurality of dictionaries corresponding
to the various countries, respectively, and used to

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recognize the location information;

having various recognition procedures which vary with the country and each of which corresponds to each category of the hierarchical structure with the plurality of stages of the location information; and

in recognizing the location information, selecting one of the dictionaries, selecting one of the recognition procedures, and performing recognition processing on the basis of the selected dictionary and recognition procedure.

3. A recording medium used to recognize location information constituted by categories which form a hierarchical structure with a plurality of stages varying with the country, said recording medium recording:

a plurality of dictionaries corresponding to the various countries, respectively, and used to recognize the location information; and

various recognition procedures which vary with the country and each of which corresponds to each category of the hierarchical structure with the plurality of stages of the location information.

4. A location information recognition apparatus comprising:

read means for reading a location information image;

line detection means for detecting one or some

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character lines from the location information image
read by said read means;

region detection means for detecting one or some
regions where location information is written from the
location information image read by said read means;

location information word detection means for
dividing the character line detected by said line
detection means and included in the location
information region detected by said region detection
means into one or a plurality of word regions;

word recognition means for recognizing a word by
collating character information included in the word
region obtained by said location information word
detection means with a content of a word dictionary in
which place names present in an area as a recognition
target are registered; and

output means for outputting a recognition result
by said word recognition means as a recognition result
of the location information.

5. An apparatus according to claim 4, wherein
said word recognition means comprises

first word recognition means for recognizing the
word by collating character information included in a
first word region obtained by said location information
word detection means with the content of the word
dictionary in which the place names present in the area
as the recognition target are registered and outputting

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a word evaluation value of the recognition result, and
second word recognition means for recognizing the
word by collating character information included in a
third word region which connects the first word region
5 processed by said first word recognition means and a
second word region adjacent to the first word region in
a same line with the content of the word dictionary and
outputting a word evaluation value of the recognition
result, and

10 said output means compares the word evaluation
value of the recognition result by said first word
recognition means with the word evaluation value of the
recognition result by said second word recognition
means and outputs the recognition result having a
15 larger word evaluation value.

6. An apparatus according to claim 5, wherein
said second word recognition means comprises
determination means for determining whether the
character information included in the first word region
20 processed by said first word recognition means
satisfies a condition for dividing the first word
region into a plurality of words, and

third word recognition means for, when said
determination means determines that the condition for
25 dividing the first word region into a plurality of
words is satisfied, recognizing the word by collating
each of the divided words with the content of the word

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dictionary and outputting a word evaluation value of a recognition result.

7. An apparatus according to claim 6, wherein the condition for dividing the character information into a plurality of words, which is determined by said determination means, is satisfied when a distance between two characters nearly predetermined characters constituting the word is larger than a distance between other characters in the same word.

8. An apparatus according to claim 4, wherein the location information image read by said read means is constituted by categories which form a hierarchical structure with a plurality of stages, said word recognition means comprises

setting means for setting an order of recognition of words in each word region obtained by said location information word detection means, which corresponds to each category of the hierarchical structure with the plurality of stages constituting the location information, and

second word recognition means for recognizing the word by collating the character information included in the word region obtained by said location information word detection means with a content of one of a plurality of word dictionaries in which different place names present in the area as the recognition target are registered in units of categories in accordance with

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the order of recognition for each word region, which is set by said setting means, and

5 said output means outputs a recognition result corresponding to each category by said second word recognition means as the recognition result of the address information.

9. An apparatus according to claim 4, wherein
the location information image read by said read
means is constituted by categories which form a
10 hierarchical structure with a plurality of stages,
said word recognition means comprises
an IC which stores in advance an order of
recognition of words in each word region obtained by
said location information word detection means, which
15 corresponds to each category of the hierarchical
structure with the plurality of stages constituting the
location information, and

second word recognition means for recognizing the
word by collating the character information included in
20 the word region obtained by said location information
word detection means with a content of one of a
plurality of word dictionaries in which different place
names present in the area as the recognition target are
registered in units of categories in accordance with
25 the order of recognition for each word region, which is
stored in said IC, and

said output means outputs a recognition result

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corresponding to each category by said second word
recognition means as the recognition result of the
address information.

10. An apparatus according to claim 4, wherein
5 the location information image read by said read
means is constituted by categories which form a
hierarchical structure with a plurality of stages,

said word recognition means comprises

word extraction means, corresponding to one of a
10 plurality of word dictionaries in which different place
names present in the area as the recognition target are
registered in units of categories, for extracting one
or a plurality of words in the word dictionary, the
words matching at least some of a plurality of
15 combinations of character strings constituted by the
character information included in the word region
obtained by said location information word detection
means, and

second word recognition means for recognizing
20 the word by collating the character information
included in the word region obtained by said location
information word detection means with the one or a
plurality of words extracted by said word extraction
means, and

25 said output means outputs a recognition result
corresponding to each category by said second word
recognition means as the recognition result of the

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address information.

11. An apparatus according to claim 4, wherein
the location information image read by said read
means is constituted by categories which form a
hierarchical structure with a plurality of stages,

said word recognition means comprises

word extraction means for, when the number of
registered words in one of a plurality of word
dictionaries in which different place names present in
the area as the recognition target are registered in
units of categories is not less than a predetermined
number, extracting one or a plurality of words in the
word dictionary, the words matching at least some of a
plurality of combinations of character strings
constituting the character information,

first recognition means for recognizing the word
by collating the character information with the one or
a plurality of words extracted by said word extraction
means, and

second recognition means for recognizing the word
by collating the character information with the content
of the word dictionary when the number of registered
words in the word dictionary corresponding to a prede-
termined category is smaller than the predetermined
number, and

said output means outputs a recognition result by
said first recognition means or a recognition result by

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said second recognition means as the recognition result
of the address information.

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